

EDL Architecture Study

Completed Technology Project (2015 - 2017)



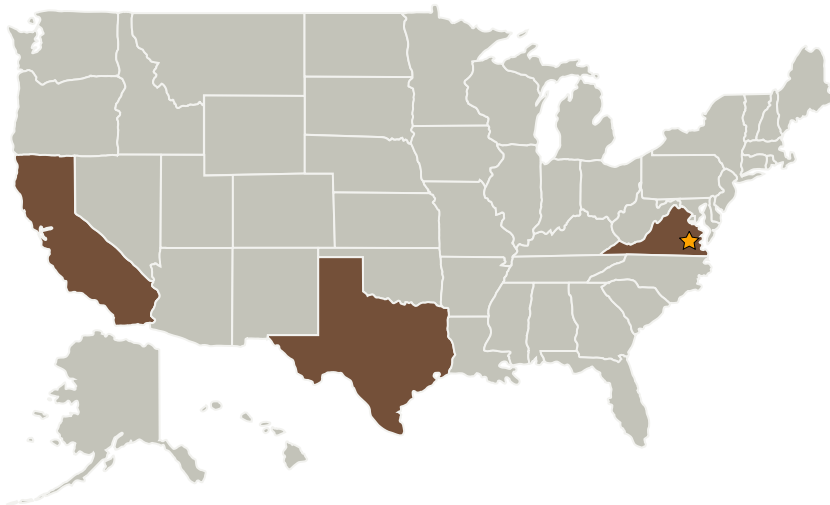
Project Introduction

Multi-center activity to analyze candidate EDL systems as they apply to human Mars landing in the context of the Evolvable Mars Campaign (EMC). The primary objective is to prioritize future STMD EDL technology investments. The study is performed in conjunction with the Human Architecture Team (HAT), sponsored by HEOMD.

Anticipated Benefits

NASA unfunded: To evaluate candidate EDL technologies using state-of-the-art structural sizing, aerothermodynamic, and trajectory simulation tools to discriminate the designs and inform future NASA investments strategies.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Langley Research Center (LaRC)	Lead Organization	NASA Center	Hampton, Virginia



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Langley Research Center (LaRC)

Responsible Program:

Game Changing Development



Primary U.S. Work Locations

California

Texas

Virginia

Project Website:

<https://www.nasa.gov/directorates/spacetech/home/index.html>

Project Management

Program Director:

Mary J Werkheiser

Program Manager:

Gary F Meyering

Principal Investigator:

Alicia M Dwyer Cianciolo

Target Destinations

Mars, Earth, Others Inside the Solar System